

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the Claims:

1-8. (CANCELED).

9. (CURRENTLY AMENDED) A method for performing a filling sequence in a contrast media injector system having that uses a fill tube coupling a syringe to contrast media supply to fill the syringe with a desired fill volume of contrast media, the method comprising:

attaching said fill tube to said syringe;

drawing contrast media into the syringe through the fill tube at a first fill rate;

thereafter, expelling substantially all air from the fill tube by expelling fluid from said syringe, wherein at least some of the contrast media is expelled through the fill tube during the expelling;

thereafter, filling the syringe at a second fill rate to fill the syringe with the desired fill volume of contrast media, wherein the second fill rate is faster than the first fill rate; and

thereafter, injecting contrast media into a patient.

10. (PREVIOUSLY PRESENTED) The method according to claim 9 wherein the

Application No. 10/750,427
Amendment Dated 12/22/08
Reply to Office Action of 9/15/08

drawing comprises drawing a first amount of contrast media into the syringe, and the expelling comprises expelling substantially all of the first amount of contrast media out of the syringe.

11. (PREVIOUSLY PRESENTED) The method according to claim 9, wherein the expelling comprises expelling substantially all air from the syringe.

12. (CURRENTLY AMENDED) A method for changing contrast media containers during a syringe filling sequence, the method comprising:

attaching a fill tube to a syringe;

thereafter, filling a syringe at at least one of a first fill rate and a second fill rate through a the fill tube, the fill tube coupled between the syringe and a first contrast container;

thereafter, pausing the filling when the first contrast container is substantially emptied;

thereafter, replacing the first contrast container with a second contrast container;

thereafter, coupling the fill tube between the syringe and the second contrast container;

thereafter, expelling substantially all air from the fill tube coupled between the syringe and the second contrast container wherein at least some of the contrast media is expelled from the syringe, through the fill tube, and into the second contrast container during the expelling; and

thereafter, resuming filling the syringe from the second contrast container at the second fill rate that is faster than the first fill rate.

13. (PREVIOUSLY PRESENTED) The method according to claim 12 wherein the step of expelling comprises:

expelling a portion of contrast media that was acquired from the first contrast container out of the syringe through the fill tube and into the second contrast container.

14. (PREVIOUSLY PRESENTED) The method according to claim 12, wherein the expelling comprises expelling substantially all air from the syringe.

15. (PREVIOUSLY PRESENTED) The method according to claim 9, wherein the expelling is performed by the contrast media injector automatically under control of control circuitry of the injector.

16. (PREVIOUSLY PRESENTED) The method according to claim 9, wherein the filling is performed by the contrast media injector automatically under control of control circuitry of the injector.

17. (PREVIOUSLY PRESENTED) The method according to claim 9, wherein the expelling and the filling are performed by the contrast media injector automatically under control of control circuitry of the injector.

18. (PREVIOUSLY PRESENTED) A method of operation for a contrast media injector system, the method comprising:

coupling a fill tube to a syringe of a contrast media injector system;
thereafter, drawing medical fluid into a the syringe of a the contrast media injector system at a first fill rate;
after the drawing, expelling at least some of the medical fluid from the syringe; and
thereafter, filling the syringe via the fill tube, wherein the drawing and the filling are automated and performed in accordance with programming of the contrast media injector system.

19. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the first fill rate is a rate sufficient to avoid aeration of the medical fluid.

20. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the drawing comprises drawing at least 20 ml of the medical fluid into the syringe.

21. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the drawing comprises drawing medical fluid through a fill tube and into the syringe.

22. (CANCELED)

23. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the filling

comprises filling the syringe with a preprogrammed volume of the medical fluid.

24. (CANCELED)

25. (PREVIOUSLY PRESENTED) The method of claim 9, wherein the syringe is oriented such that a discharge tip of the syringe is positioned above a barrel of the syringe during the drawing, the expelling, and the filling.

26. (PREVIOUSLY PRESENTED) The method of claim 12, wherein the syringe is oriented such that a discharge tip of the syringe is positioned above a barrel of the syringe during the filling, the expelling, and the resuming.

27. (PREVIOUSLY PRESENTED) The method of claim 18, wherein the syringe is oriented such that a discharge tip of the syringe is positioned above a barrel of the syringe during the drawing, the expelling, and the filling.

28. (PREVIOUSLY PRESENTED) The method of claim 9, wherein both air and contrast media are expelled through a discharge tip of the syringe during the expelling.

29. (PREVIOUSLY PRESENTED) The method of claim 12, wherein both air and contrast media are expelled through a discharge tip of the syringe during the expelling.

30. (PREVIOUSLY PRESENTED) The method of claim 18, wherein both air and contrast media are expelled through a discharge tip of the syringe during the expelling.

31. (PREVIOUSLY PRESENTED) The method of claim 27, wherein both air and contrast media are expelled through a discharge tip of the syringe during the expelling.

32. (PREVIOUSLY PRESENTED) A method of operation for a contrast media injector system, the method comprising:

drawing an initial volume of medical fluid into a syringe of a contrast media injector system at a first fill rate;

after the drawing, expelling at least some of the medical fluid from the syringe;
and

thereafter, filling the syringe at a second fill rate that is faster than the first fill rate, wherein a total volume of medical fluid in the syringe after the filling is greater than the initial volume.

33. (PREVIOUSLY PRESENTED) The method of claim 32, wherein the first fill rate is a rate sufficient to avoid aeration of the medical fluid.

34. (PREVIOUSLY PRESENTED) The method of claim 32, wherein the drawing comprises drawing at least 20 ml of the medical fluid into the syringe.

35. (PREVIOUSLY PRESENTED) The method of claim 32, wherein the drawing comprises drawing medical fluid through a fill tube and into the syringe.

36. (PREVIOUSLY PRESENTED) The method of claim 32, wherein the syringe is oriented such that a discharge tip of the syringe is positioned above a barrel of the syringe during the drawing, the expelling, and the filling.

37. (PREVIOUSLY PRESENTED) The method of claim 32, wherein both air and contrast media are expelled through a discharge tip of the syringe during the expelling.